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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,220	04/20/2000	ZINE-EDDINE BOUTAGHOU	I69.12-0433	5021

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EXAMINER

CASTRO, ANGEL A

ART UNIT PAPER NUMBER

2653

DATE MAILED: 06/25/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten signature

Office Action Summary

Application No.

09/553,220

Applicant(s)

BOUTAGHOU ET AL.

Examiner

Angel A. Castro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8 and 12 is/are rejected.
- 7) ☒ Claim(s) 4-5, 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 4/10/03 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/553,220 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claim how the means 32 for selectively altering a position of the slider is mounted to the means 40a for flexibly coupling the stationary region 38 of the load beam to the moving region 44 of the load beam.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for

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purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 6-8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kant et al (U.S. Pat. 6,215,629).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, as far as it is understood, Kant discloses a microactuator for selectively altering a position of a transducing head carried by a slider in a disc drive system with respect to a track of a rotatable disc having a plurality of concentric tracks (figures 1-3), the disc drive system having an actuator arm 16 attached to a load beam 18 for supporting the slider 24 over the rotatable disc 30, the load beam having a stationary region and a moving region 66, the microactuator comprising:

means 52, 54 for flexibly coupling the stationary region of the load beam to the moving region of the load beam; and

means 62, 64 for selectively altering a position of the slider with respect to the rotatable disc, the means for selectively altering mounted to the means for flexibly coupling and the means for selectively altering extending from a distal end of the stationary region to a proximal end of the moving region generally along a longitudinal centerline of the stationary region.

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Regarding claim 2, Kant et al discloses a microactuator for selectively altering a position of a transducing head carried by a slider 24 in a disc drive system with respect to a track of a rotatable disc 30 having a plurality of concentric tracks, the disc drive system having an actuator arm 16, the microactuator comprising:

- a load beam 18 attached to a distal end of the actuator arm 16, the load beam having a first section 78;

- a flexure 66 for supporting the slider 24 carrying the transducing head;

- a bending motor 62, 64 attached between the first section of the load beam and the flexure, the bending motor being deformable in response to a control signal applied thereto;

and

- a flexible beam 52, 54 connected between the first section of the load beam and the flexure wherein the bending motor is attached to the flexible beam.

Regarding claim 6, Kant et al shows that the load beam has a second section 76 connected to the flexure (figure 3), and further wherein the flexible beam is connected between the first section and the second section of the load beam.

Regarding claim 7, Kant et al shows that the bending motor comprises:

- a bottom electrode 95 (figure 4);

- an electroactive material 62 on top of the bottom electrode, the electroactive material constructed such that it has two portions poled in opposite directions (column 3, lines 34-36);

and

a top electrode 100 on top of the electroactive material; wherein the electroactive material bends in plane in response to control signals supplied to the bottom electrode and the top electrode.

Regarding claim 8, Kant et al discloses that the electroactive material is constructed from a piezoelectric material (column 3, line 34).

Regarding claim 12, Kant shows that the bending motor has a length to width ratio of at least about ten (figures 3-4).

Response to Arguments

6. Applicant's arguments with respect to claims 1-2 and 4-12 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

7. Claims 13-17 are allowed.

8. Claims 4-5, 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sato et al (U.S. Pat. 6,552,878) discloses a magnetic disk apparatus; Boutaghou

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(U.S. Pat. 6,301,080) discloses a dither method to unload negative suction air bearings; Fujita et al (JP 09265738) discloses a head supporting mechanism.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A. Castro whose telephone number is 703-308-8435.

The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 703-305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6037 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.



Angel Castro, Ph.D.
June 21, 2003